

At the same time the vulva is painted with the same solution and a pad of cotton saturated with the same is applied to the labia and vestibule. After four to six weeks the irrigation is used only once a day. Treatment is continued until four successive negative smears are obtained and until the complement-fixation test is negative.

**Prognosis in Operated Cases of Hypertrophic Stenosis of the Pylorus.**—GOLDBLOOM and SPENCE (*Am. Jour. Dis. Children*, April, 1920) have their report on a study of 163 cases operated by the Rammstedt method during a four-year period. They found that the duration of symptoms prior to operation was probably the most important single factor affecting the prognosis. When symptoms had lasted less than four weeks the mortality was one-third as great as when they had lasted four weeks or longer. The mortality-rate in artificially-fed babies was more than three times that for breast-fed babies. In infants weighing seven pounds or less the mortality was three and a half times greater than in those whose weight exceeded seven pounds. The mortality increased in direct proportion to the amount of weight lost previous to operation. The mortality for breast-fed infants who had vomited for less than four weeks, and who had lost less than 20 per cent. of their best weight, was almost nil. The fatalities which occur are due to accidents which are avoidable when the operation is done by a skilful surgeon.

**The Clinical Role of the Fat-soluble Vitamin: Its Relation to Rickets.**—HESS AND UNGER (*Jour. Am. Med. Assn.*, January 24, 1920) say that it would lead too far away from the subject to discuss the various theories that have been advanced to account for the occurrence of rickets, and as the data are not adequate no definite conclusion can be made. There seem to be several causes at work, rendering the unravelling of the problem so difficult that there is a difference of opinion not only as to the particular dietary factor that is at fault, but even as to whether rickets is to be considered a disorder of dietary origin. It should not be lost sight of that there is a prenatal factor involved. The fact that the negro infant, living side by side with the white in the larger cities and obtaining milk from the same source, develops rickets so frequently and so markedly, indicates that there are important influences to be reckoned with in addition to the food. In considering the diet a most important question is whether the recent theory as to the vitamin origin of this disorder can be maintained, and, more particularly, whether rickets should be attributed to a lack of the fat-soluble vitamin. The clearest understanding of this aspect can be obtained by comparing this disease to the well recognized and established deficiency diseases, scurvy and beriberi. By comparison it is shown that these two disorders are commonly manifested by weakness and inanition, and there are not the fat apparently healthy babies seen in rickets. The most important thing is the fact that neither can be brought about by overfeeding. Rickets frequently develops in infants, receiving too much milk rich in fat, proteins and salts. It is impossible to make this fact go with the thought of a deficiency disease. The studies of the authors show that the fat-soluble vitamin is not the controlling influence. They also show that infants develop rickets while receiving a full amount of this principle, and that they do mani-

fest signs, although deprived of this vitamin for many months, and at the most vulnerable period of their life. They do not find it possible to accept the term "fat-soluble vitamin" as synonymous with "antirachitic factor." They say that the danger to infants of a diet deficient in fat-soluble vitamin is slight, provided it contains a sufficient amount of calories and is complete in other ways. The infants can maintain their health and vigor in spite of taking in amounts of fat-soluble vitamins so small that they are rarely encountered in ordinary times. In spite of the fact that this vitamin is not widely distributed in nature, a disorder that may be termed "fat-soluble deficiency"—marasmus or xerophthalmia—is hardly to be appreciated from a clinical standpoint. The study of rickets was undertaken on 100 children in a modern child-caring institution. These infants lived under excellent hygienic conditions, their nursing and care was the same, their food was prepared in a central diet kitchen, and they remained in the institution for the entire period of observation. Once a month they were examined for rickets. This included a notation as to the size of the fontanelle, the beading of the ribs, the enlargement of the epiphyses, the condition of the musculature, the eruption of the teeth, the static development and the like. They were placed on various diets; an abundance of fat and fat-soluble vitamin in the form of milk and cream, a deficiency of these substances as in skimmed milk, and abundance of water-soluble vitamin as in autolyzed yeast, and diets such as Mellin's food or condensed milk. In all cases there was but one deficiency in the diet, which was adequate in quantity and therefore in its caloric value, and contained in every case sufficient antiscorbutic foodstuff. They realize that a test of this kind should be carried out for years and consequently it is impossible to lay down absolute conclusions. They were able to draw some conclusions. They call attention to the fact that the laboratory results are absolutely at variance with the opinions of most clinical observers, who believe that rickets follow overfeeding. There is no delicate indication of what may be termed latent rickets or subacute rickets. This can only be recognized by matabolism tests. After a preliminary study they found that beading of the ribs, especially in conjunction with the enlargement of the epiphyses, furnished the most reliable criterion of the course of the disease. It was found that six grades of beading could be distinguished. Physicians in general and pediatricians in particular, regard beading of the ribs as a pathognomonic sign of rickets. The writers noted that there was also a marked beading in infantile scurvy, but that the beading became rapidly less or disappeared upon the administration of orange-juice or other antiscorbutic food. In other words there is not only a rachitic beading but also a scorbutic beading. This conforms to the observation in experimental scurvy, as was noted in tests on guinea-pigs. In the same way but to a less extent in scurvy as well as in rickets there is seen the enlargement of the epiphyses. This is the probable reason of the confusion existing in regard to these two conditions, so that years ago scurvy was thought to be acute rickets. Beading of the ribs may also come about by lack of the water-soluble vitamin. It is of interest to note that beading of ribs has been observed postmortem in cases of infantile beriberi. As regards the influence of hygienic and non-dietetic measures on the development of rickets, it was found that rickets could develop in spite of an abundance of fresh